

Malaysian Civilian Nurses in Military Hospitals

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ABSTRACT

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A job satisfaction study among civilian nurses was conducted in 3 Military Hospitals in Malaysia. A Participant convenient sample of n=172 was selected for statistical analysis and the response rate was 63.7 %. Responsibility, Staff Relation, Opportunity to Develop and Patient Care were domains identified that had high level of job satisfaction. Staff Relation domain was significant with the highest P- value among demographic data. The dataset was not distributed normally as the distribution was skewed left. The findings of the study revealed that there was significant positive relationship that showed general satisfaction among the domains. From the study it could be concluded that there was the influence of general satisfaction with all the reviewed elements. There was correlation with each other by 45% as indicated by the R2 value in the regression test.

Contribution/Originality: The purpose of the study was to measure how nurses enjoy what they were doing, performing and getting recognitions as a reflection of their contentedness in the workplace, typically in the military hospitals. It was found that the overall finding of 6 domains namely; General Satisfaction, Opportunity to Develop, Responsibility, Patients Care, Time Convenience and Staff Relations that correlates at minimum of moderate job satisfaction by statistical analysis.

1. Introduction

Shortage of nurses and nurse turnover has become a global problem in healthcare institutions ([Haddad et al., 2020](#); [Drennan & Ross, 2019](#)). The importance of nurses to the health services is very crucial to both developing and developed countries. Thus, the concern to maintain the work force among nurses should be given priority among all of countries.

[Masroor and Fakir \(2010\)](#) have highlighted that nurses are people who are expected to perform variety of duties and responsibilities not only to patients but also to the hospital where they work ([Masroor & Fakir, 2010](#)). However, they are still considered to be under paid and the assessment level among them is still substandard. Military hospitals are no different from the other government hospitals where the nurses are being paid according to the grades standardized by Ministry of Health Malaysia.

The issue of the retention of nurses in today's health care industry is essential based on the outcome of high quality patient and the decreased costs for health care organizations. Hence, there is a need to identify new knowledge in the relationships that can assist nursing leaders to design a nursing workplace that can foster the best possible patient outcomes.

2. Literature Review

Recent study on job satisfaction among nurses in military hospitals was done in 2021 to know the relationship between job satisfaction and caring behavior ([Putra et al., 2021](#)). From studies conducted in Teheran, it has been found management and work environment are prominent factors that encourage job satisfaction among nurses in both military and civil hospitals ([Moosavi et al., 2014](#); [Mousavi & Movahedirad, 2015](#); [Batol et al., 2020](#); [Kortovigi et al., 2020](#)). A review by [Zangaro and Kelley \(2010\)](#) concludes that job satisfaction is a critical factor that affects nurses' retention in an organization ([Zangaro & Kelley, 2010](#)).

[Aiken and Patrician \(2000\)](#) has reported that the difference in the work environment can make a difference in job satisfaction. From his study on the job satisfaction, respondents felt satisfied with professional status, interaction and autonomy, salary and policies management assess. According to [Tomey \(2010\)](#), the venue, amenity volume, the quantity of man power and wide range of age group and employee, the job categories promoted the necessary training for employee, and social involvement. These element are identified by [Garon & Ringl \(2004\)](#) that underlined working conditions include these element that consist of work load, staffing, working environment, empowerment, autonomy, shared governance and control over practice ([Garon & Ringl, 2004](#)). Both of them have identified few factors that contribute to job dissatisfaction pertaining to salary, educational support, work scheduling, sense of belonging, communication and collaboration between nurse and physician.

The needs theories of both [Maslow \(1954\)](#) and [Herzberg and Mausner \(1959\)](#) address the enormous complexity of the motivation and satisfaction of workers ([Maslow, 1954](#); [Herzberg & Mausner, 1959](#)). There are many levels of motivation as described by Maslow hierarchy of needs. Once the lower needs are met, sustaining employee satisfaction requires that the factors of internal motivation be met. This is described by Herzberg and Mausner's theory to relate the work compensation and other external factors for any job-related issues that impede nurses' ability to perform their nursing duties ([Herzberg & Mausner, 1959](#)). This could demotivate nurses and thus, positive outcome cannot be achieved. Consequently, job dissatisfaction is likely to arise despite efforts to improve external working conditions. According Maslow's hierarchy of needs scale, it would be logical to assume nurses would be operating somewhere in the upper three levels based on of their educational, economic, and social status.

Therefore, the conceptual framework and several research theories of [Maslow \(1954\)](#), [Herzberg and Mausner \(1959\)](#) are most relevant as reference in this study to support the application of the needs and motivation, in predicting job satisfaction and persistence. Thus, the concept is used to extend the nurses' job persistence behavior which central to this study.

3. Objectives

Our goals for this work are to determine factors that influence job satisfaction among civilian nurses in three Military Hospitals in Malaysia. The authors are also aware that job environment, working cultures and policies in managerial situations in different countries may affect the job satisfaction. This work is also regarded as an initial research which focuses on Malaysian Civilian Nurses who work in Military Hospitals in Malaysia. This work also aims to identify the level to job satisfaction as well as to compare different relationships between socio-demographic characteristics and job satisfaction. We have also intend to measure the correlations between the domains like General Satisfaction, the Opportunity to Develop, Responsibility, Patient Care, Time Convenience and Staff Relations and civilian nurses who work in these three Military Hospitals.

4. Method

This work was conducted quantitatively and ethical consent was obtained to administer the study. The statistical software SPSS version 21.0 was used to analyse the generated data. Permission to conduct the study was also requested from the Director of each selected Military Hospital.

There were 270 civilian nurses who participated in the study. The data was collected from three military hospitals in Malaysia namely; Hospital Angkatan Tentera Tuanku Mizan, Kuala Lumpur, 94 nurses from Hospital Angkatan Tentera Kem Terendak, Melaka and 96 nurses from Hospital Pangkalan TLDM Lumut, Perak.

The respondents were from all categories of nurses from various departments and units in the military hospitals. Therefore, socio-demographic information was included together with self-administration questions that were constructed using Likert Scale ([Likert, 1961](#)). Since the total number of civilian nurses at the three military hospitals was 270, all of them were participants in this study. There were 172 questionnaires that were completed and returned by the respondents.

5. Results and Discussion

5.1. Socio- demographic Data

[Table 1](#) shows the frequencies and percentages of the respondents ($n = 172$) for study on job satisfaction among civilian nurses in Military Hospitals. All data tabulated are then presented separately according to their respective characteristics.

The ages of the respondents was divided into 3 groups ranging from 21 – 30, 31 – 40 and 41 – 50 years. There were 49.42 % respondent, that was the largest in the age group of 21 – 30. There were only 31.98 % and 18.60 % in 31- 40 and 41 – 50 of age groups respectively. The female gender was dominant with 96.51 % compared to 3.49 % male respondents.

The duration of service was divided into 3 groups. Those in the 1- 2 years of service duration registered the highest frequency of 38.95 % , followed by > 10 years and 5 – 10 years of service duration with 25 % respondents. The marital status of the respondents shows 79.07 % were married while the remaining are in the single percentile.

In this work, all respondents are currently civilian nurses who are working in military hospitals. In this study the respondents are mostly diploma holder (93.02 %) based on their educational qualification. The respondents' job position involved in this study is matrons, sisters and staff nurses. The staff nurses are higher number of respondents with 83.70 % followed by sisters and matrons with 15.12 % and 1.16 %, respectively.

Table 1: Frequency and percentages characteristic of respondent (n=172)

		Frequency	Percent
Sex	Male	6	3.49
	Female	166	96.51
Age	21-30 years	85	49.42
	31-40 years	55	31.98
	41-50 years	32	18.60
Marital status	Married	136	79.07
	Single	36	20.93
Job title	Matron	2	1.16
	Sister	26	15.12
	Staff nurse	144	83.70
Long worked at hospital.	1 to 2 years	67	38.95
	5-10 years	43	25.00
	> 10 years	62	36.05
level of education	Diploma	160	93.02
	Degree	12	6.98
	Total	172	100.00

The actual number of respondents who returned the questionnaires was only $n= 172$. Therefore, the response rate was 63.7% of the total number of nurses in the three military hospitals.

In this study convenient sampling was conducted for respondents from each military hospital. The selections of normality tests are statistically very important based on the number of samples. Therefore, Kruskal-Wallis test is used for normality analysis for sample more than 100. The Mann-Whitney U significant test is used for two independent groups while Kruskal-Wallis analysis is for 3 or more independents groups.

5.2. Reliability Data

The statistical correlation to measure reliability of the questionnaire was $\alpha = 0.87$ for $n= 172$. This result shows that the constructs used in the instruments are valid in this study. Thus, the Cronbach's Alpha that is the evidence of a high reliability is the same as in the work by [Lu et al. \(2007\)](#) and [Khamisa et al. \(2015\)](#).

Based on [Table 2](#), 57 % have highly agreed that they are generally satisfied with their job. The remaining of 43 % have moderate mean rank value due to general satisfaction based on the questionnaire. The satisfaction levels are based on the mean scores as shown in [Table 3](#).

Table 2: Level of satisfaction for question on General Satisfaction (n=172)

	Statements					Mean	Std. Dev	Level
	SD	D	U	A	SA			
If I could chose the career again I would continue with this position	8	8	26	108	22	3.74	0.91	High
My job has more advantage than disadvantage	4.7%	4.7%	15.1%	62.8%	12.8%	4.01	0.66	High
My income is a reflection of the work I do	2	3	16	122	29	3.53	0.93	Moderate
There is no personal growth in my work	1.2%	1.7%	9.3%	70.9%	16.9%	3.22	1.06	Moderate
I would like to change my career	6	20	38	93	15	2.70	1.13	Moderate
I really enjoy my work	3.5%	11.6%	22.1%	54.1%	8.7%	3.89	0.73	High
In general, I am satisfied with my work	14	31	39	79	9	3.90	0.68	High
	8.1%	18.0%	22.7%	45.9%	5.2%			
	27	55	40	43	7			
	15.7%	32.0%	23.3%	25.0%	4.1%			
	2	7	23	116	24			
	1.2%	4.1%	13.4%	67.4%	14.0%			
	1	7	23	119	22			
	.6%	4.1%	13.4%	69.2%	12.8%			

Note: SD = Strongly Disagree; D = Disagree; U = Uncertain; A = Agree; SA = Strongly agree

Table 3: Level of satisfaction and mean score range

Level of satisfaction/agree	Mean score
Low	1.00 – 2.33
Moderate	2.34 – 3.66
High	3.67 – 5.00

5.3. Mean level of satisfaction of all Domains

Figure 1 shows the relationships of the mean levels of satisfaction of the 6 domains in this study.

Figure 1: Mean level

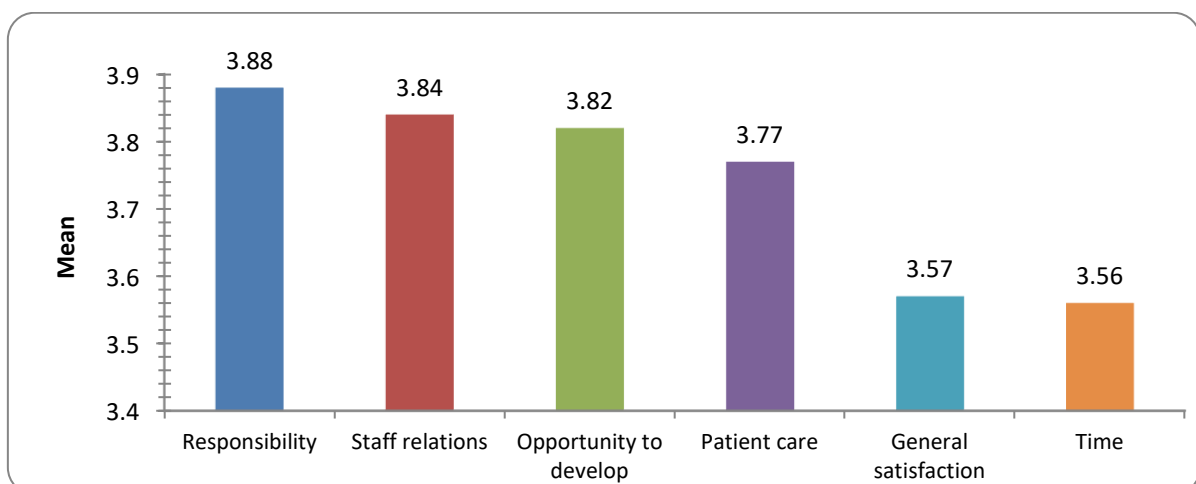


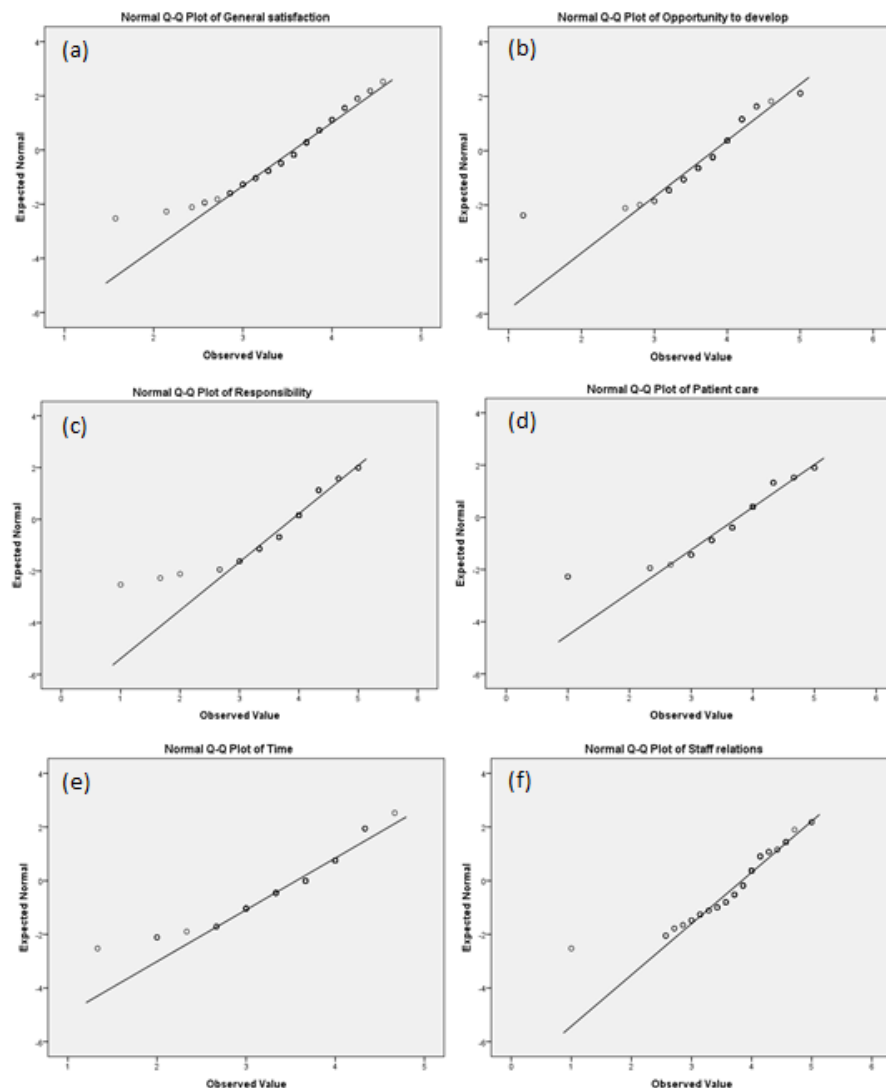
Table 4: Mean level of satisfaction of all Domains

	Mean	Std. Deviation	Level
General satisfaction	3.57	0.43	Moderate
Opportunity to develop	3.82	0.48	High
Responsibility	3.88	0.54	High
Patient care	3.77	0.61	High
Time	3.56	0.52	Moderate
Staff relations	3.84	0.52	High

5.4. Normality Test

The normality test shown in Figure 2 reveals that the dataset are not normally distributed. This result is consistent with the research result from Chung (2011) in their work for job satisfaction among nurses in Las Vegas. According to the work research by Zar (1999), the importance of normality test is however small, it has an effect on the study (Chung, 2011; Zar, 1999).

Figure 2: Normality Q-Q plots of (a) General Satisfaction, (b) Opportunity to Develop, (c) Responsibility, (d) Patients Care, (e) Time Convenience and (f) Staff Relations



5.5. Significant Test (P-Value)

In Table 5, the Kruskal-Wallis result for Patient Care and Staff Relation domains in Age Group are $P = 0.02$ and 0.001 , respectively. The P -value for Job in Table 6 for Patient Care is $P = 0.001$ and for Staff Relation. is $P = 0.01$. Table 7 shows the analysis for Service Duration for the Time and Staff Relation domains that have significant values of $P = 0.02$ and 0.001 , respectively.

Table 5: Mean rank score domain evaluation of job satisfaction among Age

	age	N	Media n	Percentil e 25	Percentile 75	Mea n Ran k	Chi- Square	P
General satisfaction	21-30 years	85	3.57	3.29	3.86	83.52	2.14	0.34
	31-40 years	55	3.57	3.29	3.86	84.42		
	41-50 years	32	3.71	3.46	3.86	98.00		
Opportunity to develop	21-30 years	85	3.80	3.60	4.00	77.83	5.42	0.07
	31-40 years	55	4.00	3.60	4.00	95.91		
	41-50 years	32	4.00	3.60	4.00	93.36		
Responsibility	21-30 years	85	4.00	3.67	4.00	86.56	0.12	0.94
	31-40 years	55	4.00	3.67	4.00	85.13		
	41-50 years	32	4.00	3.75	4.00	88.70		
Patient care	21-30 years	85	4.00	3.33	4.00	84.19	8.15	0.02**
	31-40 years	55	4.00	3.33	4.00	78.06		
	41-50 years	32	4.00	4.00	4.00	107.14		
Time	21-30 years	85	3.67	3.17	4.00	79.95	3.48	0.18
	31-40 years	55	3.67	3.33	4.00	95.29		
	41-50 years	32	3.83	3.00	4.00	88.78		
Staff relations	21-30 years	85	3.86	3.57	4.00	74.04	13.98	0.001**
	31-40 years	55	4.00	3.71	4.00	91.58		
	41-50 years	32	4.00	4.00	4.14	110.86		

Table 6: Mean rank score domain evaluation of job satisfaction among Job Title

	Job title	N	Median	Percentile 25	Percentile 75	Mean Rank	Chi-Square	P
General satisfaction	Matron	2	3.50	2.86	-	85.50	0.36	0.83
	Sister	26	3.71	3.43	3.75	91.33		
	Staff nurse	144	3.57	3.29	3.86	85.04		
Opportunity to develop	Matron	2	4.10	4.00	-	130.50	5.58	0.06
	Sister	26	4.00	3.75	4.20	102.56		
	Staff nurse	144	3.80	3.60	4.00	82.37		
Responsibility	Matron	2	4.00	3.67		96.25	0.36	0.83
	Sister	26	4.00	3.67	4.00	90.12		
	Staff nurse	144	4.00	3.67	4.00	85.11		
Patient care	Matron	2	3.33	3.33	3.33	32.50	8.59	0.01**
	Sister	26	4.00	4.00	4.00	107.15		
	Staff nurse	144	4.00	3.33	4.00	82.90		
Time	Matron	2	3.83	3.33	-	111.75	3.06	0.22
	Sister	26	4.00	3.25	4.00	99.25		
	Staff nurse	144	3.67	3.00	4.00	83.23		
Staff relations	Matron	2	3.36	2.57	-	72.00	9.60	0.01**
	Sister	26	4.00	4.00	4.57	113.17		
	Staff nurse	144	3.86	3.57	4.00	81.26		

Table 7: Mean rank score domain evaluation of job satisfaction Service Duration

	Duration worked at hospital	N	Median	Percentile 25	Percentile 75	Mean Rank	Chi-Square	P
General satisfaction	1 to 2 years	67	3.57	3.43	3.71	84.03	3.75	0.15
	5-10 years	43	3.57	3.14	3.86	77.29		
	> 10 years	62	3.71	3.54	3.86	95.56		
Opportunity to develop	1 to 2 years	67	3.80	3.60	4.00	84.86	4.71	0.09
	5-10 years	43	3.80	3.60	4.00	75.37		
	> 10 years	62	4.00	3.75	4.00	95.99		
Responsibility	1 to 2 years	6	4.00	3.67	4.00	79.96	2.22	0.33

		7						
	5-10 years	4	4.00	3.67	4.33	91.56		
		3						
	> 10 years	6	4.00	3.92	4.00	90.06		
		2						
Patient care	1 to 2 years	6	4.00	3.33	4.00	82.40	3.98	0.14
		7						
	5-10 years	4	4.00	3.33	4.00	79.36		
		3						
	> 10 years	6	4.00	3.67	4.00	95.89		
		2						
Time	1 to 2 years	6	3.33	3.00	4.00	73.75	8.25	0.02*
		7						*
	5-10 years	4	3.67	3.33	4.00	90.51		
		3						
	> 10 years	6	4.00	3.33	4.00	97.50		
		2						
Staff relations	1 to 2 years	6	3.86	3.57	4.00	73.10	17.32	0.00
		7						1**
	5-10 years	4	3.86	3.57	4.00	77.70		
		3						
	> 10 years	6	4.00	3.86	4.14	107.0		
		2				9		

The Spearman Correlation Test results have identical significant values for the Opportunity to Develop, Patient Care, Time Convenience and Staff Relations domains ($P = 0.001$) as shown in Table 8. These results have positive correlation based on the reported significant r - values. Malliarou et al. (2010) have reported a comparable significant correlation with opportunity domain of $P = 0.012$ (Malliarou et al., 2010). Therefore, the Opportunity domain is an important factor that contributes to significance correlation in job satisfaction study.

Table 8: General Satisfaction Relationship with factors reviewed

	General Satisfaction	
	r	P
Opportunity to develop	0.34	0.001**
Responsibility	0.14	0.06
Patient care	0.30	0.001**
Time convenience	0.42	0.001**
Staff relations	0.55	0.001**
Age	0.09	0.25
Service duration	0.10	0.20
Level of education	-0.10	0.21

The Job Opportunity domain by Lu et al. (2007) has negative affectivity ($\beta = -0.105$) for job satisfaction for their study (Lu et al., 2007). However, if the β affectivity is excluded, the opportunity domain in Lu et al. (2007) is no longer significant ($P > 0.05$). This means that the domain has no significant impact on job satisfaction.

The regression Multiple Regression value is shown in Table 9. This study has acquired $R^2 = 0.45$ and the result is comparable to that of Tzeng's (2002) with $R^2 = 0.410$ for his study (Tzeng, 2002) on job stress among Chinese nurses ($r = 0.46$, $P < 0.05$). Tzeng's report had mentioned positive significant correlation of job stress and nurses intention to quit.

Table 9: Regression of General Satisfaction with factors reviewed

	B	Beta	P	95.0% Confidence Interval for B	R ²
(Constant)	1.48		0.001**	0.99-1.96	0.45
Staff relations	0.42	0.51	0.001**	0.30-0.54	
Time	0.16	0.20	0.001**	0.06-0.27	
Level of education	-0.31	-0.19	0.001**	-0.50-(-0.12)	
Opportunity to develop	0.20	0.23	0.001**	0.06-0.34	
Responsibility	-0.14	-0.17	0.04**	-0.27-(-0.01)	

Staff Relation, Time Convenience and Opportunity to Develop as predictors in this work have also positive significant correlation with job satisfaction. The idea of direct impact on the correlated elements has indicated that job satisfaction is in agreement with these domains by 45%, statistically.

6. Conclusion

The study concludes that Responsibility, Staff Relation, Opportunity to Develop, and Patient Care are domains that have acquired high level of satisfaction. (Mean score = 3.88, 3.84, 3.82 and 3.82, respectively). Another two domains (General Satisfaction and Time) have achieved moderate level of satisfaction.

Basic characteristic such as gender, age marital status, level of education, job title, and duration of services are identified as related factors that contribute to job satisfaction among civilian nurses in military hospitals. Domains such as General Satisfaction, Opportunity to Develop, Responsibility, Patient Care, Time Convenience and Staff Relation are identified as factors that relate to job satisfaction among civilian nurses in Military Hospitals.

The Significant tests for Patient Care and Staff Relation domains in the Age group domain are $P = 0.02$ and 0.001 , respectively. The P -value for Job title domain with Patient Care, is $P = 0.001$ and the value for Staff Relation is $P = 0.01$. The Time and Staff Relation scores for Service Duration domains are $P = 0.02$ and 0.001 , respectively).

Correlation was found at significant level with $P = 0.001$ for General Satisfaction, Opportunity to Develop, Patient Care, Time Convenience and Staff Relation domains. The R^2 value of 0.45 in the regression test acquired for General Satisfaction indicated the correlation of 45% in each domain. Further studies should look more into the management of healthcare providers so as to increase job satisfaction among civilian nurses in Military Hospitals. Huge demands on the cost of medical fees and quality of patient care are concerns addressed by MOH to improve Malaysian health system (MOH, 2011). Therefore, other holistic studies on job satisfaction can discuss further on the policies, patient care and quality of performance of civilian nurses who work in military healthcare facilities.

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Conflict of Interests

The authors declare no conflict of interest of the submitted work. Authors and co-authors are aware of the reviewed data and the manuscript sent are seen and acknowledged as satisfactory.

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